

4G-alfa-D-glucopyranosyl rutin, and its preparation and uses.

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Abstract

A novel glycoside, 4-alpha-D-glucopyranosyl rutin, is formed by a saccharide-transferring enzyme and glucoamylase in a solution which contains rutin together with glucoamylase. The 4-alpha-D-glucopyranosyl rutin formed in such a solution is purified with a synthetic macroreticular resin, and crystallization in an organic solvent yields a complex crystal with the organic solvent. 4-alpha-D-glucopyranosyl rutin exhibits the same molecular absorption coefficient as intact rutin has, and is readily water-soluble, substantially tasteless and odorless, and readily hydrolyzable in vivo to exhibit physiological activities inherent to rutin. These render 4-alpha-D-glucopyranosyl rutin very useful as a highly-safe, natural yellow coloring agent, antioxidant, stabilizer, quality-improving agent, preventive, remedy, uv-absorbent and deterioration-preventing agent in foods, beverages, tobaccos, cigarets, feeds, pet foods, pharmaceuticals, cosmetics and plastics.

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